

2SC1985 2SC1986

Silicon NPN Triple Diffused Mesa

☆ Complement to types 2SA770 and 2SA771

Application Example : General and Industrial Purpose	● Outline Drawing 1.....MT-25(TO220) ● Test Circuit.....③
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Absolute Maximum Ratings

Symbol	2SC1985	2SC1986	Unit
V _{CB0}	80	100	V
V _{CE0}	60	80	V
V _{EB0}	6		V
I _C	6		A
I _B	3		A
P _C	40 (T _{FL} =25°C)		W
T _J	150		°C
T _{stg}	-55~+150		°C

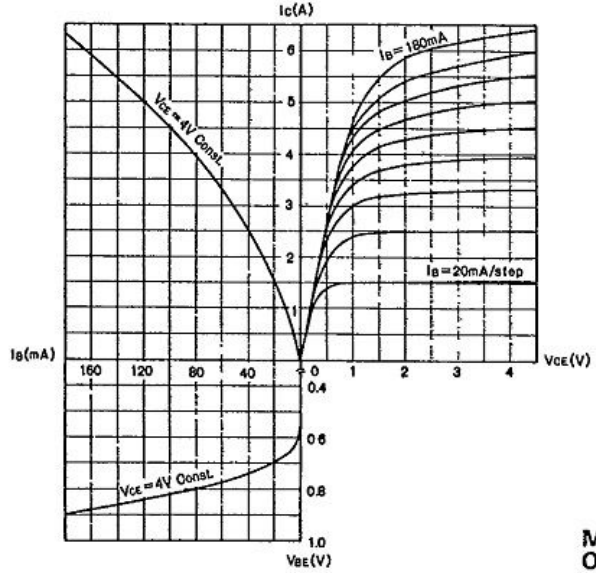
Electrical Characteristics

Symbol	Conditions	2SC1985	2SC1986	Unit
I _{CB0}	V _{CB} =	1.0max	1.0max	mA
I _{EB0}	V _{EB} =6V	80	100	V
V _{(BR)CEO}	I _C =25mA	1.0max		mA
h _{FE}	V _{CE} =4V, I _C =1A	60min	80min	V
V _{CE(sat)}	I _C =3A, I _B =0.3A	40min		MHz
f _T	V _{CE} =12V, I _E =-0.5A	1.0max		V
		10typ		

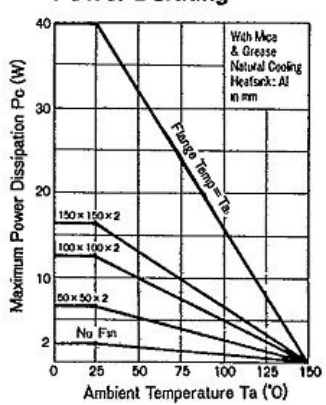
Typical Switching Characteristics (Emitter Common)

V _{CC} (V)	R _L (Ω)	I _C (A)	V _{B2} (V)	I _{B1} (mA)	I _{B2} (mA)	t _r (μs)	t _{stg} (μs)	t _f (μs)
9	3	3	-5	300	-300	1.1typ	1.8typ	0.55typ

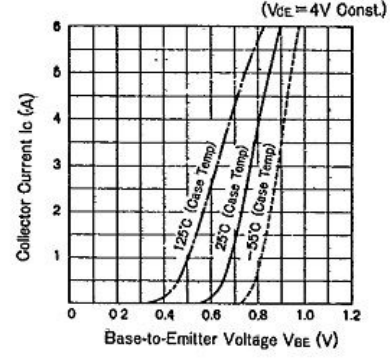
Common Emitter Characteristics (Typical Value)



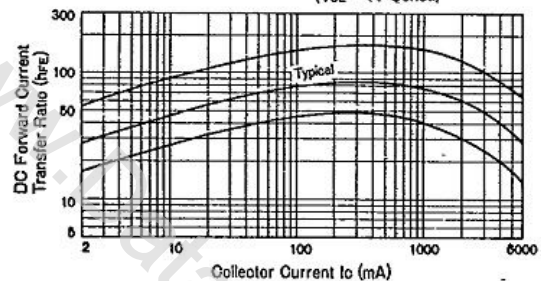
Power Derating



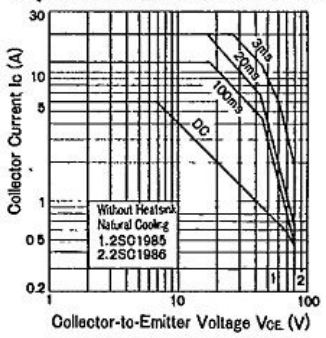
Temperature Characteristics



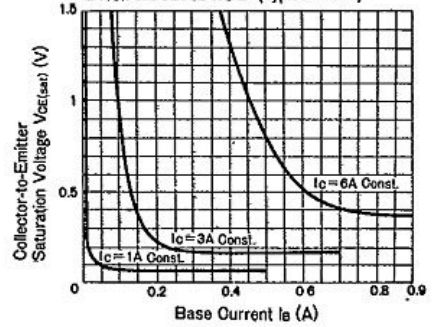
DC Current Gain Characteristics (V_{CE} = 4V Const.)



Maximum Areas For Safe Operation (ASO) (Single Pulse)



Collector-to-Emitter Saturation Characteristics (Typical Value)

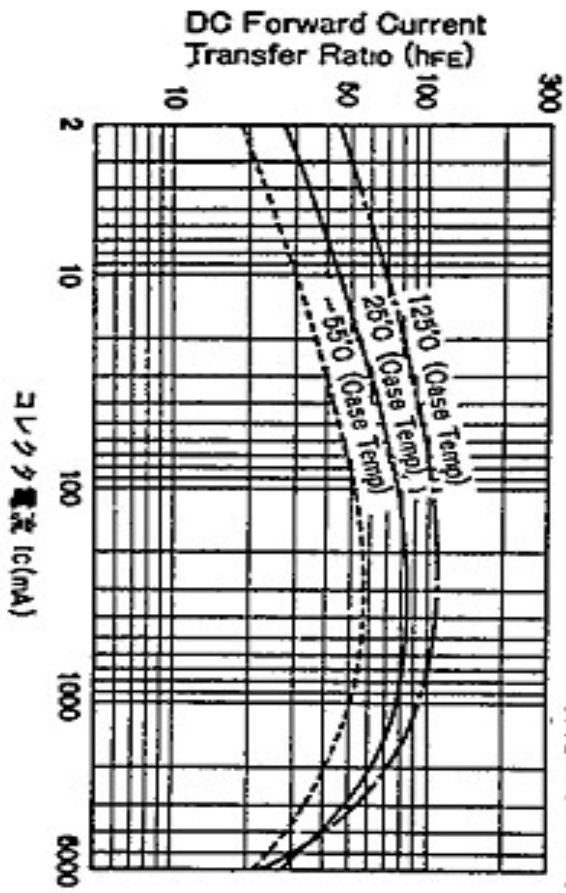


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DC Current Gain Temperature Characteristics

($V_{CE} = 4V$ Const.)



Transient Thermal Resistance Characteristics

